1.   (currently amended) A method of detecting the shape of a patient body part to be treated, said method comprising the following steps:

[a)   applying at least one marker to the patient body part, said at least one marker being detectable by a navigation system;]

a)[b)]   producing a camera image of the patient body part;

b)[c)]   mapping an outline of the patient body part, said outline appearing sharp in the camera image, in a first plane by means of an analyzer connected to the camera;

c)[d)]   altering the focusing distance of the camera;

d)[e)]   mapping a sharp outline of the patient body part in a second plane by means of the analyzer; and

e)[f)]   repeating steps b) [c)] to d) [e)] until a sufficient number of outlines has been mapped so that the three-dimensional shape of the patient body part can be established[;

[g)   assigning a location and shape of the patient body part in the navigation system via a position of the at least one maker captured by the camera; and

h)   processing the mapped shape of the patient body part by the navigation system monitoring a treatment zone to incorporate the outer shape of the patient body part in navigation].

2.   (original) The method as set forth in claim 1, wherein differences in contrast are mapped to establish which outline appears sharpened in said camera image.

3.   (original) The method as set forth in claim 1, wherein said camera is a video camera having a very small depth of sharpness.

4.   (currently amended) The method as set forth in claim 1, wherein markers are applied to [said object] the patient body part to highlight specific points on the patient body part for identification.

5.   (currently amended) The method as set forth in claim 1, wherein said analyzer used is a computer including an image processing program, in which digital image signals are processed, or analog image signals[,] captured by said camera[,] are digitized and then processed.

6.   (original) The method as set forth in claim 1, wherein a camera is used on a surgical microscope.

7.   (cancelled)

8.   (cancelled)

9.   (currently amended) The method as set forth in claim 1, wherein at least one fixed point, detectable by [said] a navigation system, is selected on [said object] the patient body part to assign the location and shape of [said object] the mapped three-dimensional patient body part in said navigation system [via] based on the position of said at least one point as also captured by the camera.

10.   (previously presented) The method as set forth in claim 1, which is used together with a navigation system for location referencing in radiotherapy methods or surgical operations.

11.   (currently amended) The method as set forth in claim 1, wherein the mapped shape of the patient body part is assigned to [that] a shape determined by a preoperative or intraoperative scan to permit compensation or location correction.

12.   (currently amended) The method as set forth in claim 1, wherein the mapped shape of the patient body part is used to automatically focus object points or planes defined by [the] a user.

13.   (previously presented) The method as set forth in claim 1, wherein the mapped shape of the patient body part is used to produce an image which is sharp at any depth.

14-17. (cancelled)

18.   (new) The method as set forth in claim 1, further comprising:
processing the mapped three-dimensional shape of the patient body part with a navigation system to incorporate the three-dimensional shape of the patient body part in navigation.

19.   (new) A method of detecting the shape of a patient body part to be treated, said method comprising the following steps:
   a)   applying at least one marker to the patient body part, said at least one marker being detectable by a navigation system;
   b)   producing a camera image of the patient body part;
   c)   mapping an outline of the patient body part, said outline appearing sharp in the camera image, in a first plane by means of an analyzer connected to the camera;
   d)   altering the focusing distance of the camera;
   e)   mapping a sharp outline of the patient body part in a second plane by means of the analyzer;
   f)   repeating steps c) to e) until a sufficient number of outlines has been mapped so that the three-dimensional shape of the patient body part can be established;
   g)   assigning a location and shape of the mapped three-dimensional patient body part in the navigation system, said assigning being performed based on a position of the at least one marker captured by the camera; and

h) processing the mapped shape of the patient body part with the navigation system to incorporate the three-dimensional shape of the patient body part in navigation.